

Appl. No. 09/839,065

Amdt. AF dated April 27, 2004

Reply to Final Office Action of January 28, 2004

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (previously presented) An intravascular catheter, comprising:
an elongate shaft having a proximal end, a distal end, and a distal tip having a shapeable length that is shapeable by thermoforming techniques, the elongate shaft including:
an inner liner;
a second layer disposed over the inner liner, the second layer extending from the proximal end of the shaft to a distal terminus; wherein the distal terminus is set back from the distal end of the shaft a distance equal to or greater than the shapeable length;
a third layer disposed over the second layer; and
a fourth layer disposed over the third layer, the fourth layer including a proximal end and a distal end, the distal end of the fourth layer extending to the distal end of the shaft.
2. (Cancelled)
3. (Previously Amended) The catheter in accordance with claim 1, wherein the distal terminus is about 4 millimeters from the distal end of the shaft.
4. (Original) The catheter in accordance with claim 3, wherein the shape of the distal tip can be heat set.
5. (Original) The catheter in accordance with claim 4, wherein the shape of the distal tip can be heat set by steam.
6. (Original) The catheter in accordance with claim 3, wherein the inner liner comprises polytetrafluoroethylene.

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7. (Original) The catheter in accordance with claim 3, wherein the second layer comprises polyether block amide.

8. (Original) The catheter in accordance with claim 3, wherein the third layer comprises a coil.

9. (Original) The catheter in accordance with claim 8, wherein the coil comprises stainless steel.

10. (Original) The catheter in accordance with claim 8, wherein the coil comprises nickel alloy.

11. (Original) The catheter in accordance with claim 8, wherein the coil comprises a non-ferrous metal.

12. (Original) The catheter in accordance with claim 3, wherein the fourth layer comprises polyether block amide.

13. (Original) The catheter in accordance with claim 3, wherein the distal end of the shaft has an outside diameter that is less than the outside diameter of the proximal end of the shaft.

14. (Original) The catheter in accordance with claim 3, wherein the distal end of the shaft has a durometer that is less than that of the proximal end of the shaft.

15. (Original) The catheter in accordance with claim 3, further comprising a radiopaque marker.

16. (Original) The catheter in accordance with claim 15, wherein the distal end of the third layer is secured by the radiopaque marker.

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17. (Original) The catheter in accordance with claim 3, wherein the second layer further comprises a second segment.

18. (Original) The catheter in accordance with claim 17, wherein the second segment is disposed at the inner liner between the distal terminus and the distal end of the shaft.

19. (previously presented) An intravascular catheter, comprising:
an elongate shaft having a proximal end, a distal end, and a distal tip having a shapeable length that is shapeable by thermoforming techniques, the elongate shaft including:

an inner liner;

a second layer disposed over the inner liner, the second layer extending from the proximal end of the shaft to a distal terminus, wherein the distal terminus is set back from the distal end of the shaft a distance equal to or greater than the shapeable length;

a third layer disposed over the second layer; the third layer including a single coil region near the distal end of the shaft and a multiple coil region near the proximal end of the shaft; and

a fourth layer disposed over the third layer, the fourth layer including a proximal end and a distal end, wherein the durometer at the proximal end is greater than the durometer at the distal end, the distal end of the fourth layer extending to the distal end of the shaft.

20. (Original) The catheter in accordance with claim 19, wherein the distal terminus is about 4 millimeters from the distal end of the shaft.

21. (Original) The catheter in accordance with claim 20, wherein the shape of the distal tip can be heat set.

22. (Original) The catheter in accordance with claim 21, wherein the shape of the distal tip can be heat set by steam.

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23. (Original) The catheter in accordance with claim 21, wherein the inner liner comprises polytetrafluoroethylene.

24. (Original) The catheter in accordance with claim 21, wherein the second layer comprises polyether block amide.

25. (Original) The catheter in accordance with claim 21, wherein the third layer comprises a coil.

26. (Original) The catheter in accordance with claim 25, wherein the coil comprises stainless steel.

27. (Original) The catheter in accordance with claim 25, wherein the coil comprises nickel alloy.

28. (Original) The catheter in accordance with claim 25, wherein the third layer comprises a non-ferrous metal.

29. (Original) The catheter in accordance with claim 21, wherein the fourth layer comprises polyether block amide.

30. (Original) The catheter in accordance with claim 21, wherein the distal end of the shaft has an outside diameter that is less than the outside diameter of the proximal end of the shaft.

31. (Original) The catheter in accordance with claim 21, further comprising a radiopaque marker.

32. (Original) The catheter in accordance with claim 31, wherein a distal end of the third layer is secured by the radiopaque marker.

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33. (Original) The catheter in accordance with claim 21, wherein the second layer further comprises a second segment.

34. (Original) The catheter in accordance with claim 33, wherein the second segment is disposed at the inner liner between the distal terminus and the distal end of the shaft.

35-40. (Withdrawn)

41. (Currently Amended) An intravascular catheter, comprising:
an elongate shaft having a proximal end, a distal end, and a distal tip having a shapeable length that is shapeable by thermoforming techniques, the elongate shaft including:
an inner liner;
a second layer disposed over the inner liner, the second layer including a first segment extending from the proximal end of the shaft to a distal terminus and a second segment extending from the distal terminus to the ~~proximal~~ distal end; wherein the distal terminus is set back from the distal end of the shaft a distance equal to or greater than the shapeable length;
a third layer disposed over the second layer; and
a fourth layer disposed over the third layer, the fourth layer including a proximal end and a distal end, the distal end of the fourth layer extending to the distal end of the shaft.